Catalogue of American Amphibians and Reptiles.

McCRANIE, JAMES R. 1983. *Nerodia taxispilota.*

Nerodia taxispilota (Holbrook)
Brown water snake

Coluber taxispilotus Holbrook, 1838:113. Type-locality, "the seaboard of South Carolina . . . [and] the neighbourhood of the Altamaha river in Georgia." No holotype designated (see Adler, 1976).
Tropidonotus taxispilotus: Holbrook, 1842:35.
Nerodia taxispilota: Baird and Girard, 1853:43.
Tropidonotus taxispilotus var *Brocki* Heilprin, 1887:129. Type-locality, "Eagle Bay, Lake Okeechobee." Holotype, Acad. Natur. Sci. Philadelphia 6619, juvenile female, collected early 1886 by Angelo Heilprin (not examined by author).
Natrix taxispilota: Cope, 1889:392.
[*Natrix taxispilota taxispilota*]: Viosca, 1948:11. By implication.
Natrix taxispilota taxispilota: Cagle, 1952:20. First actual use of trinomial.

• CONTENT. No subspecies are recognized.

• DEFINITION. A large, thick-bodied semi-aquatic snake with a known maximum length of 1753 mm (males average significantly smaller than females). There is one row of 20–29 middorsal dark brown body blotches alternating with a series of similar blotches on each side. Anteriorly, the middorsal blotches are 3–4 scale rows wide, posteriorly, 2–3 rows wide. In transverse width, the larger blotches cover 7–10 scale rows. The lateral blotches cover from the first to about the tenth row of scales. The ground color is usually pale brown, grayish brown or reddish brown. Some specimens are dark brown with the blotches only a little darker than the ground color. The venter is yellow to brown and heavily marked with dark brown or black. The chin shields are smudged with dark pigment. There are no chin papillae in adult males. The head is subtriangular and much wider than the neck. The parietal scutes are shortened and serrated posteriorly and fragmented behind. There are 128–152 ventrals; 62–85 subcaudals; 27–33 (rarely 25) strongly keeled scale rows at midbody (only females have been recorded with 33); in adult males, the keels of the dorsal scales in the anal region are knobbed; 8–10 supralabials; 10–13 infralabials; usually no subocular; eye resting on fourth (occasionally fourth and fifth) supralabials; anterior temporal usually divided; 1–2 preoculars; loreal present, not reaching eye; anal divided. The hemipenes are greatly expanded apically with a simple straight sulcus and with a very extensive nude apical area.

• DESCRIPTIONS. Descriptions of color, pattern, and/or scutellation are in Cope (1900), Brown (1901), Wright and Bishop (1915), Clay (1938), Wright and Wright (1957), Duellman and Schwartz (1958), Carr and Goin (1959), Sanders (1966), Mount and Schwaner (1970), Mount (1975), and Linzey and Clifford (1981). Other descriptions include: skeleton (Auffenberg, 1963); Duvernoy's gland (Taub, 1967); chromosomes (Eberle, 1972); skull osteology (Marx and Rabb, 1972); cranial musculature (Varkey, 1979).

• ILLUSTRATIONS. Color illustrations are found in Schmidt and Inger (1957), Cochran and Goin (1970), Conant (1975), Behler and King (1979), Martof et al. (1980), Ashton and Ashton (1981), Haast and Anderson (1981), Linzey and Clifford (1981), and Smith and Brodie (1982). Ditmars (1939) included black and white photographs which illustrated the parietal scale and pattern differences between *N. taxispilota* and *N. rhombifera*. Other black and white photographs are in Carr and Goin (1959), Neill (1963, including an aberrant striped individual), and Mount (1975). Heilprin (1887) and Cope (1900) included drawings of the head. Eberle (1972) illustrated the karyotypes. Varkey (1979) included drawings of the muscles of the posterior region of the skull and anterior region of the vertebral column. Dowling (1959) and Auffenberg (1963) showed drawings of precaudal vertebrae.

• DISTRIBUTION. *Nerodia taxispilota* ranges from the coastal plain of southeastern Virginia southward throughout the mainland of Florida to the coastal plain east of Mobile Bay, Alabama. The species is also known from major river systems in the piedmont of Alabama, Georgia, South Carolina, and North Carolina. The species is rarely found in brackish water (Neill, 1958). It has expanded its range in southern Florida (Schwartz, 1950), having lately been found for the first time at well known collecting localities in Dade County, and has apparently spread into piedmont river systems over the past few decades.

• FOSSIL RECORD. Auffenberg (1963) recorded the species in Pleistocene deposits of Alachua and Columbia counties in Florida.

• PERTINENT LITERATURE. Herrington (1978) studied the growth and reproduction and included references. Other data on embryos (not included in Herrington, 1978) are in Wright and Bishop (1915), Franklin (1945), and Camp (1980a). White et al. (1982) studied the reproductive cycle and embryonic development and Semlitsch and Gibbons (1978) the reproductive allocation. Camp (1980a), Camp et al. (1980), Collins (1981), and Linzey and Clifford (1981) presented ecological information. Other works and their topics are: enemies, Brimley (1909) and Linzey and Clifford (1981); effects of *Micrurus* and *Agkistrodon* venom, Halter (1923) and Keegan and Andrews (1942), respectively; parasites, Collins (1969) and Camp (1980a, 1980b); thermoregulation, Osgood (1970) and Goodman (1971); radiocesium retention, Staton et al. (1974); weight-length relationships, Kaufman and Gibbons (1975); effect of temperature on ecdysis rates, Semlitsch (1979); albinism, Palmer and Braswell (1980); bibliography of the Virginia literature, Mitchell (1981); effect of hypophysectomy on follicle lengths, Aldridge (1982).

• ETYMOLOGY. The name *taxispilota* comes from the Greek combination *taxis* (meaning arrangement) and *spilos* (meaning spot), alluding to the dorsal pattern.

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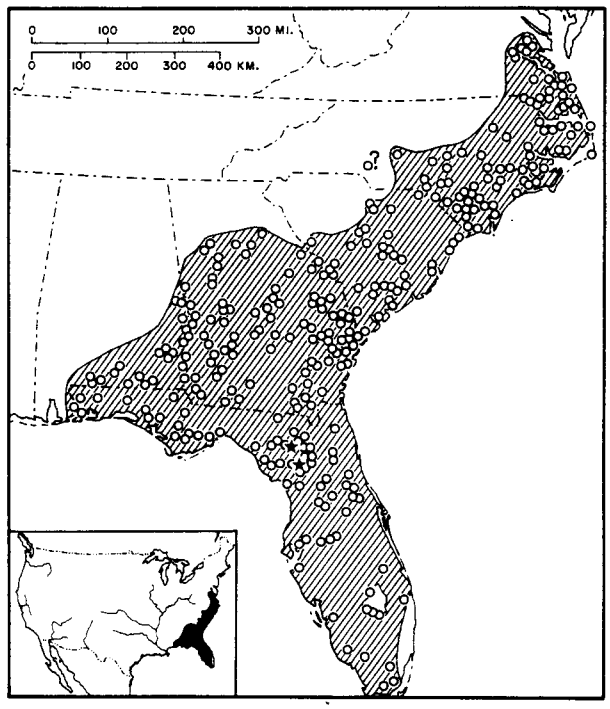

MAP. Type-locality not precise enough to plot. Circles indicate locality records; stars indicate Pleistocene fossil localities.

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